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**Ruochuan Liu\*** ([liuruochuan@math.pku.edu.cn](mailto:liuruochuan@math.pku.edu.cn)), Peking University, 78 Jing Chun Yuan, Beijing, 100871, Peoples Rep of China, and **Daqing Wan** ([dwan@math.uci.edu](mailto:dwan@math.uci.edu)), Rowland Hall 410C, Irvine, CA 92697-3875. *Artin Conjecture for  $p$ -adic Galois Representations of Function Fields.*

For a global function field  $K$  of positive characteristic  $p$ , we show that Artin conjecture for L-functions of geometric  $p$ -adic Galois representations of  $K$  is true in a non-trivial  $p$ -adic disk but is false in the full  $p$ -adic plane. In particular, we prove the non-rationality of the geometric unit root L-functions. (Received August 29, 2016)